

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

Date of mailing (day/month/year)
29 June 2006 (29.06.2006)

Applicant's or agent's file reference

PCTF183

(FP358US)

IMPORTANT NOTIFICATION

International application No.
PCT/JP2004/008202

International filing date (day/month/year)
11 June 2004 (11.06.2004)

Applicant

ZEON CORPORATION et al

RECEIVED

'06.7.07

PATENT ATTORNEYS,
"SHINPO"

To:
SEKINE, Takeshi
Patent Attorneys "Shinpo", 1-20-10-203, Takadanobaba,
Shinjuku-ku, Tokyo
1690075
JAPON

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Yoshiko Kuwahara

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference PCTF183	FOR FURTHER ACTION		See item 4 below
International application No. PCT/JP2004/008202	International filing date (<i>day/month/year</i>) 11 June 2004 (11.06.2004)	Priority date (<i>day/month/year</i>) 03 September 2003 (03.09.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant ZEON CORPORATION			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																									
<p>3. This report contains indications relating to the following items:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center; padding: 5px;"><input checked="" type="checkbox"/></td> <td style="width: 15%; text-align: center; padding: 5px;">Box No. I</td> <td style="width: 70%; padding: 5px;">Basis of the report</td> </tr> <tr> <td style="text-align: center; padding: 5px;"><input type="checkbox"/></td> <td style="text-align: center; padding: 5px;">Box No. II</td> <td style="padding: 5px;">Priority</td> </tr> <tr> <td style="text-align: center; padding: 5px;"><input type="checkbox"/></td> <td style="text-align: center; padding: 5px;">Box No. III</td> <td style="padding: 5px;">Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center; padding: 5px;"><input type="checkbox"/></td> <td style="text-align: center; padding: 5px;">Box No. IV</td> <td style="padding: 5px;">Lack of unity of invention</td> </tr> <tr> <td style="text-align: center; padding: 5px;"><input checked="" type="checkbox"/></td> <td style="text-align: center; padding: 5px;">Box No. V</td> <td style="padding: 5px;">Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center; padding: 5px;"><input type="checkbox"/></td> <td style="text-align: center; padding: 5px;">Box No. VI</td> <td style="padding: 5px;">Certain documents cited</td> </tr> <tr> <td style="text-align: center; padding: 5px;"><input type="checkbox"/></td> <td style="text-align: center; padding: 5px;">Box No. VII</td> <td style="padding: 5px;">Certain defects in the international application</td> </tr> <tr> <td style="text-align: center; padding: 5px;"><input checked="" type="checkbox"/></td> <td style="text-align: center; padding: 5px;">Box No. VIII</td> <td style="padding: 5px;">Certain observations on the international application</td> </tr> </table>		<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application																							
<p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).</p>																									

<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"></div> <div style="width: 45%; text-align: right;"> Date of issuance of this report 20 June 2006 (20.06.2006) </div> </div>	
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 740 14 35	Authorized officer Yoshiko Kuwahara Telephone No. +41 22 338 90 90

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

		Date of mailing (day/month/year)
Applicant's or agent's file reference PCTF183		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/JP2004/008202	International filing date (day/month/year) 11.06.2004	Priority date (day/month/year) 03.09.2003
International Patent Classification (IPC) or both national classification and IPC		
Applicant ZEON CORPORATION		

<p>1. This opinion contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>	
<p>2. FURTHER ACTION</p> <p>If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.</p> <p>If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.</p> <p>For further options, see Form PCT/ISA/220.</p> <p>3. For further details, see notes to Form PCT/ISA/220.</p>	

Name and mailing address of the ISA/JP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/008202

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 a sequence listing
 table(s) related to the sequence listing
 - b. format of material
 in written format
 in computer readable form
 - c. time of filing/furnishing
 contained in the international application as filed.
 filed together with the international application in computer readable form.
 furnished subsequently to this Authority for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2004/008202

Box No. V	Reasoned statement under Rule 43bis (1)(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																		
<p>1. Statement</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; padding: 5px;">Novelty (N)</td> <td style="width: 50%; padding: 5px;">Claims <u>4-6, 9, 10</u></td> <td style="width: 25%; padding: 5px;">YES</td> </tr> <tr> <td style="padding: 5px;">Claims <u>1-3, 7, 8, 11-17</u></td> <td style="padding: 5px;">NO</td> </tr> <tr> <td style="padding: 5px;">Inventive step (IS)</td> <td style="padding: 5px;">Claims _____</td> <td style="padding: 5px;">YES</td> </tr> <tr> <td></td> <td style="padding: 5px;">Claims <u>1-17</u></td> <td style="padding: 5px;">NO</td> </tr> <tr> <td style="padding: 5px;">Industrial applicability (IA)</td> <td style="padding: 5px;">Claims <u>1-17</u></td> <td style="padding: 5px;">YES</td> </tr> <tr> <td></td> <td style="padding: 5px;">Claims _____</td> <td style="padding: 5px;">NO</td> </tr> </table> <p>2. Citations and explanations:</p> <p>Document 1: JP 2002-182423 A (Nippon Zeon Co., Ltd.) 26 June 2002 Document 2: JP 2003-29450 A (Ricoh Co., Ltd.) 29 January 2003 Document 3: JP 2002-278143 A (Ricoh Co., Ltd.) 27 September 2002 Document 4: JP 2000-187358 A (Fuji Xerox Co., Ltd.) 04 July 2000 Document 5: JP 10-83096 A (Dainippon Ink and Chemicals Inc.) 31 March 1998</p> <p>Claims 1-3, 7, 8, and 11-17</p> <p>Document 1 describes a toner that contains silica fine particles with an average particle diameter of 0.03 to 1 μm and a sphericity of 1 to 1.3 (Par. No. 0043). When there is a certain amount of wideness in the particle diameter distribution of silica fine particles, and especially when particles with small particle diameters are included, the D_{v50}/D_{v10} is expected to be 1.8 or higher, and document 1 describes a toner containing silica fine particles with a small particle diameter (average particle diameter of 14 nm) (examples 1 and 2). Thus, in such a case the D_{v50}/D_{v10} is very likely 1.8 or more, or 2 or more. Furthermore, Par. Nos. 0026, 0032, and 0073 describe the shapes of the colored resin particles, and Par. Nos. 0017 to 0019 describe a releasing agent and charge suppressing agent. Therefore, document 1 describes the inventions of claims 1-3, 7, 8, and 11-17, and these inventions lack novelty and an inventive step.</p> <p>Claims 4 and 5</p> <p>Based on the descriptions in documents 1-3, the inventions of claims 4 and 5 lack an inventive step. Document 2 (claim 3) and document 3 (claim 1) describe the bulk density of added silica in toner in the range of 120 g/L to 200 g/L, and 100 to 250 g/L, respectively, and this authority finds that persons skilled in the art can easily set the range of the bulk density of silica in the present invention by referring to these documents.</p>			Novelty (N)	Claims <u>4-6, 9, 10</u>	YES	Claims <u>1-3, 7, 8, 11-17</u>	NO	Inventive step (IS)	Claims _____	YES		Claims <u>1-17</u>	NO	Industrial applicability (IA)	Claims <u>1-17</u>	YES		Claims _____	NO
Novelty (N)	Claims <u>4-6, 9, 10</u>	YES																	
Claims <u>1-3, 7, 8, 11-17</u>	NO																		
Inventive step (IS)	Claims _____	YES																	
	Claims <u>1-17</u>	NO																	
Industrial applicability (IA)	Claims <u>1-17</u>	YES																	
	Claims _____	NO																	

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/008202

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The range of the Dv50/Dv10 value of the silica fine particles (A) of claims 1 and 2 can be understood to be one showing that the silica fine particles (A) have a certain amount of widening in the particle diameter distribution, especially on the small diameter end. In addition, claims 7 and 8 describe a toner that also contains silica particles having a small volume average particle diameter (B). The silica fine particles (A) and (B) are distinguished only by the fact that the volume average particle diameters are different. However, because it is possible that particles of 80 nm or less will be contained in (A), which is a collection of fine particles with diameters that differ with a certain range, a toner to which only (A) is added is indistinguishable from a toner to which (B) is also added. As a result, the scope of the inventions of claims 7 and 8 is not clear.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V.

Claim 6

Based on the descriptions in documents 1 and 4, the invention of claim 6 lacks an inventive step. Document 4 (Par. No. 0057) describes producing silica to be added to a toner by a high temperature melting method, and this authority finds persons skilled in the art can easily select the melting method as the method of manufacturing silica.

Claims 9 and 10

Based on the descriptions in documents 1 and 5, the inventions of claims 9 and 10 lack an inventive step. Document 4 (Par. Nos. 0018 to 0020) describe the addition of conductive inorganic fine particles of 5 to 500 nm together with silica fine particles, and this authority finds that persons skilled in the art can easily prepare a constitution wherein conductive inorganic fine particles are added in addition to silica fine particles.